c3controls Series WD Wiring Duct will optimize your wire/cable management and installation. The wide variety of types and options will increase your wiring productivity, reduce installation costs, and will give you the most attractive and organized control panels in the industry!

Sectio	n 28
Narrow Slot	4
Nide Slot	5
Replacement Components	8
Specifications	9
Dimensions	10
Nire Fill Capacity	11



NOTE: 2 METER WIRE DUCT DOES NOT QUALIFY FOR FREE SHIPPING. CONSULT FACTORY FOR AVAILABLE SHIPPING OPTIONS.

PROVEN

cALus CE

Conformity to Standards: UL 1565 CSA C22.2 No. 18.5-02 IEC 61084-2-1 **Certifications:** UL File #: E330184 (Guide Z0DZ2, Z0DZ8)

CE Marked (per EU Low Voltage Directive 2006/95/EC and RoHS Directive 2011/65/EU)

NOTE: The scope (range, description, price, specifications, dimensions, etc.) of the product featured in this section is subject to change without notice. Refer to www.c3controls.com for product updates. REVISION 11.2022



Every product in our portfolio is designed and manufactured to meet the needs of the machine builder, including our rugged line of Wiring Duct. Check out all the features of our Series WD below!

SLEEK AND DURABLE WIRE DU	JCT FOR SUPERIOR PERFORMANCE IN ANY ENVIRONMENT.
✓ Proven	Our Wire Duct and covers are UL Listed and CE marked, and RoHS compliant of the second for global acceptance.
✓ Environmentally Secure	Non-flammable (UL94 V-0), rigid PVC won't warp, peel, chip, crack, or become brittle, and resists oil, salt solutions, and fungus for superior performance in any environment.
✓ Simple Installation	Mounting hole patterns with elongated slots comply with DIN 43659 for global installation flexibility.
✓ Vibration Resistant	Restricted slot design ensures that wires are held in place, even when the cover is not installed, allowing for durable performance in high vibration applications.
✓ Mounting Inserts Accepted	Embossed mounting holes accept mounting inserts for installing smaller wiring duct inside larger wiring duct. Mounting inserts can be installed even after the wiring duct is secured to the panel, making it easy and saving you installation time.
🗸 Sleek Design	Flush side-wall and duct provide increased wire capacity and a pleasing, finished look.
Easy Identification	Complete catalog number and dimensions printed on the side of the duct for quick identification and utilization.
✓ Safe Handling	Smooth, rounded edges on duct fingers and covers prevent cutting and abrasions to hands and wires.
✓ Limited Lifetime Warranty*	Every product is backed by our limited lifetime warranty—unmatched in the industry— bringing you quality components that perform in the most demanding applications.
✓ Guaranteed Same-Day Shipping*	Product availability reduces inventory, and improves cash-flow—saving you money. With c3controls any order for standard catalog items received by 6:00pm ET is guaranteed to ship same-day.
✓ Advantage Pricing	Our approach to product development, manufacturing, and focus on servicing the OEM and Electrical Equipment Builder reduces cost. The result—the best value in the industry.

*See c3controls Terms & Conditions

Like us, c3controls has great people—their customer service representatives are personable and knowledgeable, and I've always remained friends with my sales representative over the years since we began working with c3controls.

Dave Welch, President • Welch Engineering





Interlocking, non-slip cover with two contact points prevents the cover from sliding, even in high vibration applications—and ensures a rigid duct assembly.



Two slot types are available to meet your capacity and flexibility needs: Narrow Slot for more precise wiring and Wide Slot for larger wires and bundles.



NARROW SLOT /



Some of Our Popular Configurations:

	WIRING DUCT—NARROW (THIN) SLOT	
CATALOG NUMBER	DESCRIPTION	LIST/PC.
WD-B25X60N	Wiring Duct & Cover, W: 25mm (0.98") x H: 60mm (2.36"), Narrow (Thin) Slot, Grey	\$ 35.00
WD-B40X60N	Wiring Duct & Cover, W: 40mm (1.57") x H: 60mm (2.36"), Narrow (Thin) Slot, Grey	\$ 39.00
WD-B40X80N	Wiring Duct & Cover, W: 40mm (1.57") x H: 80mm (3.15"), Narrow (Thin) Slot, Grey	\$ 47.00
WD-B60X80N	Wiring Duct & Cover, W: 60mm (2.36") x H: 80mm (3.15"), Narrow (Thin) Slot, Grey	\$ 59.00
WD-B25X60NWH	Wiring Duct & Cover, W: 25mm (0.98") x H: 60mm (2.36"), Narrow (Thin) Slot, White	\$ 35.00
WD-B40X60NWH	Wiring Duct & Cover, W: 40mm (1.57") x H: 60mm (2.36"), Narrow (Thin) Slot, White	\$ 39.00
WD-B40X80NWH	Wiring Duct & Cover, W: 40mm (1.57") x H: 80mm (3.15"), Narrow (Thin) Slot, White	\$ 47.00
WD-B25X60N-A	Wiring Duct & Cover, W: 25mm (0.98") x H: 60mm (2.36"), Narrow (Thin) Slot, Grey w/Adhesive Backing	\$ 38.80
WD-B60X80N-A	Wiring Duct & Cover, W: 60mm (2.36") x H: 80mm (3.15"), Narrow (Thin) Slot, Grey w/Adhesive Backing	\$ 66.40

I	t's eas	Y TO BUILD YC	UR	OWN WIRING	D U C T
	y pick the code to build your pa	number from each of the sec ort number.	tions b		
Wide	e (Standard) Slo	ot Wiring Duct			
WD - / Exam Wirin	B W II III IV ple: To build one g Ducts, the part	V VI of our most popular ; number would be VI or WD-B40X40W			11111
	/ \//	RING DUCT		II. WIRING DUCT TYPE	
CODE WD	DESCRIPTION		CODE B	DESCRIPTION	
VVD	Wiring Duct		В	Rigid, "U" Shaped Duct with Non-Slip Co	over
		III. DIME			
	DIMENSIONS IN MM		ES (WIDTH		
CODE	LENGTH: 2 METERS	LENGTH: 6'-6.75"		PACKAGE QTY.*	LIST/PC.
25X30 25X40	25 x 30 25 x 40	0.98 x 1.18 0.98 x 1.57		36	\$ 26.00 \$ 32.00
25X40 25X60	25 x 40 25 x 60	0.98 x 1.57		<u>36</u> 18	\$ 32.00
25X80	25 x 80	0.96 x 2.30		18	\$ 43.00
25X100	25 x 80	0.96 x 3.15		18	\$ 50.00
40X40	40 x 40	1.57 x 1.57		18	\$ 36.00
40X60	40 x 60	1.57 x 2.36		18	\$ 39.00
40X80	40 x 80	1.57 x 3.15		18	\$ 47.00
40X100	40 x 100	1.57 x 3.94		12	\$ 54.00
60X60	60 x 60	2.36 x 2.36		12	\$ 48.00
60X80	60 x 80	2.36 x 3.15		12	\$ 59.00
60X100	60 x 100	2.36 x 3.94		8	\$ 67.00
80X80	80 x 80	3.15 x 3.15		12	\$ 61.00
*NOTE: Sm	aller package quantities are available	e. A \$10.00 handling fee applies for each part number. Consult factory	/ for details.		
	IV. s	SLOT TYPE		VI. ADHESIVE BACK*	
CODE	DESCRIPTION	DIMENSIONS	CODE	DESCRIPTION	LIST/PC.
W	Wide (Standard)	See Figure 1W on page 11	(Blank)	No Adhesive Back	_
			A	Adhesive Back for 25mm Wide	\$ 3.80
			A	Adhesive Back for 40mm & 60mm Wide	\$ 7.40
	V.	COLOR	A	Adhesive Back for 80mm Wide	\$ 11.00
CODE	COLOR		*NOTE: Sur	rface MUST be clean and dry—free of dirt, grease, oil, water, etc.	· · · · ·
(Blank)	Grey		Backed W		
WH	White				
	vviiito				
NOTE: 2 MET	ER WIRE DUCT DOES NOT QUA	LIFY FOR FREE SHIPPING. CONSULT FACTORY FOR AVAILA	BLE SHIPPING	OPTIONS.	CHEDULE G

Some of Our Popular Configurations:

	WIRING DUCT—WIDE (STANDARD) SLOT	
CATALOG NUMBER	DESCRIPTION	LIST/PC.
WD-B25X60W	Wiring Duct & Cover, W: 25mm (0.98″) x H: 60mm (2.36″), Wide (Standard) Slot, Grey	\$ 35.00
WD-B40X60W	Wiring Duct & Cover, W: 40mm (1.57") x H: 60mm (2.36"), Wide (Standard) Slot, Grey	\$ 39.00
WD-B40X80W	Wiring Duct & Cover, W: 40mm (1.57") x H: 80mm (3.15"), Wide (Standard) Slot, Grey	\$ 47.00
WD-B60X80W	Wiring Duct & Cover, W: 60mm (2.36") x H: 80mm (3.15"), Wide (Standard) Slot, Grey	\$ 59.00
WD-B25X60WWH	Wiring Duct & Cover, W: 25mm (0.98") x H: 60mm (2.36"), Wide (Standard) Slot, White	\$ 35.00
WD-B40X60WWH	Wiring Duct & Cover, W: 40mm (1.57") x H: 60mm (2.36"), Wide (Standard) Slot, White	\$ 39.00
WD-B40X80WWH	Wiring Duct & Cover, W: 40mm (1.57") x H: 80mm (3.15"), Wide (Standard) Slot, White	\$ 47.00
WD-B25X60W-A	Wiring Duct & Cover, W: 25mm (0.98") x H: 60mm (2.36"), Wide (Standard) Slot, Grey w/Adhesive Backing	\$ 38.80
WD-B60X80W-A	Wiring Duct & Cover, W: 60mm (2.36") x H: 80mm (3.15"), Wide (Standard) Slot, Grey w/Adhesive Backing	\$ 66.40



c3controls Series WD Wiring Duct includes a wide variety of types and options to simplify and optimize your wire/cable management and installation. By using all of the features of the Series WD Wiring Duct, you'll increase your wiring productivity, reduce installation costs, and end up with the most organized and attractive control panels the industry has to offer.

Wiring duct and covers are constructed of rigid, non-flammable (UL94 V-0), polyvinylchloride (PVC) and are RoHS compliant. They're also UL approved and CE marked for global compliance.

Just take a look at the Series WD Wiring Duct to see what it has to offer, and how you might realize the benefits of it in combination with our other outstanding wiring products like Series WTB2 IEC Terminal Blocks, featured in Section 22.



Product features include:

- cURus, CE Marked, and RoHS compliant.
- Wiring duct (and covers) are available in both grey and white to compliment your control panel design and match your company "look and feel."

OPTIONAL ADHESIVE BACKING. CONVENIENT. ACCURATE. FAST.

We've all been there: you measure once, twice, then tap holes to mount a wire duct in your panel and discover you didn't position the holes accurately. Whether they're off by a mile or just a hair, it's a pain.

Put an end to all the eyeballing with c3controls' optional adhesive. It's an ideal convenience feature that allows you to *temporarily* stick your wiring duct where you want it on the panel before you *permanently* mount it. Just position, press, *then* drill and tap. Now that's convenient.



UNIQUE PRODUCT FEATURES



- 1. V-shaped slot lead-in makes wire insertion fast and easy.
- 2. Snap-off, side wall fingers are scored to easily enlarge slots for any size wire or wire bundle. Scoring ensures clean break-offs, eliminating sharp edges that can damage wire insulation and abrasions to hands. No tool is required to "snap-off" fingers.
- **3.** Two slot types are available to meet your capacity and flexibility needs, and accept almost any size wire or wire bundle:
 - Narrow Slot smaller fingers for more precise wiring
 - Wide Slot larger slots for bigger wires and bundles
- 4. Interlocking, non-slip cover with two contact points prevents the cover from sliding, even in high vibration applications – and ensures a rigid duct assembly.
- 5. Smooth, rounded edges on duct fingers and covers prevent cutting and abrasions to hands and wires.
- 6. Flush side-wall and duct provide increased wire capacity and a pleasing, finished look.
- 7. Restricted slot design ensures that wires are held in place, even when the cover is not installed.
- 8. Embossed mounting holes accept mounting inserts for installing smaller wiring duct inside larger wiring duct. Mounting inserts can be installed even after the wiring duct is secured to the panel.
- 9. Mounting hole patterns with elongated slots comply with DIN 43659 for global installation flexibility.
- **10.** Non-flammable (UL94 V-0), rigid PVC won't warp, peel, chip, crack, or become brittle, and resists oil, salt solutions, and fungus for superior performance in even the most demanding industrial environments.
- **11.** Wide variety of sizes to meet your wiring capacity needs:
 - Widths from 25mm (0.98") to 80mm (3.15")
 - Heights from 30mm (1.18") to 100mm (3.94")
 - Up to 21 width/height combinations in each slot type









SPECIFICATIONS:

		WIRING DUCT SPECIFICATIONS					
GENERAL							
	UNITS						
MATERIALS		Rigid, Self-Extinguishing PVC					
RoHS COMPLIANCE		For RoHS Compliance documentation by pro	oduct, refer to www.c3controls.com				
CONTINUOUS USE TEMPERATURE	°F/°C	+5 to +140 / -15	5 to +60				
FLAMMABILITY		UL94 V-0					
STANDARD WIRING DUCT AND COVER LENGTH		2 meters (6'-6	5.75")				
STANDARD UNIT		Wiring Duct complet	e with Cover				
MATERIAL PROPERTY							
	UNITS	STANDARD	VALUE				
Tensile Strength at Break	kg/cm ²	ASTM D838	>390				
Tensile Modulus	kg/cm ²	ASTM D638	13,500				
Flexural Strength	kg/cm ²	ASTM D790	550				
Compressive Strength	kg/cm ²	ASTM D695	1190				
Izod Impact Strength	kg-cm/cm	ASTM D256	7.0				
Hardness - Shore D	—	ASTM D2240	75-80				
HDT at 4.6 kg/cm ²	°C	ASTM D648	85				
Vicat Softening Point at 5 kg Load	°C	ASTM D1525 85					
Co-efficient of Linear Thermal Expansion	۵°	ASTM D696 4.6 x 10 ⁻⁵					
Flammability	—	UL94	V-0				
Glow Wire Test (2mm)	°C	IEC 695-2-1	960				
Limiting Oxygen Index	%	ASTM D2863	48.0				
Specific Gravity	—	ASTM D792	1.48				
Water Absorption	%	ASTM D570	0.05				
Power Factor	—	ASTM D150	0.018				
Dielectric Constant	—	ASTM D150	2.5				
Dielectric Strength	kV/mm	ASTM D149	13				
Surface Resistivity	Ohm	ASTM D257	1.29 x 10 ¹⁵				
Volume Resistivity	Ohm-cm	ASTM D257	3.21 x 10 ¹⁶				
Lead Content	ppm	Directive 2002/95/EC	<500				
Cadmium Content	ppm	(IEC 61321)	<50				

WIRING DUCT AND COVER



WIRING DUCT AND COVER DIMENSIONS									
WIDTH (MM)	HEIGHT (MM)	WIDTH (INCHES)	HEIGHT (INCHES)						
25	30	0.98	1.18						
25	40	0.98	1.57						
25	60	0.98	2.36						
25	80	0.98	3.15						
25	100	0.98	3.94						
40	40	1.57	1.57						
40	60	1.57	2.36						
40	80	1.57	3.15						
40	100	1.57	3.94						
60	60	2.36	2.36						
60	80	2.36	3.15						
60	100	2.36	3.94						
80	80	3.15	3.15						
	WIDTH (MM) 25 25 25 25 25 25 40 40 40 60 60 60 60	WIDTH (MM) HEIGHT (MM) 25 30 25 40 25 60 25 80 25 100 40 40 40 60 40 60 40 60 60 80 60 80 60 100 60 80 60 100	WIDTH (MM) HEIGHT (MM) WIDTH (INCHES) 25 30 0.98 25 40 0.98 25 60 0.98 25 60 0.98 25 60 0.98 25 80 0.98 25 100 0.98 40 40 1.57 40 60 1.57 40 80 1.57 40 100 1.57 60 60 2.36 60 80 2.36						

MOUNTING PATTERNS

SLOTS







DUCT WIDTH: 40mm and 60mm



Formula for calculating Fill Capacity: Number of wires = $\frac{Duct W \times H}{1.75 \times (Wire \ O.D.)^2} / 2$

	WIRE FILL CAPACITY FOR ELECTRICAL CONDUCTORS																								
	ELECTRICAL CONDUCTORS																								
	NOMINAL NOMINAL								NOMINAL NOMINAL					22 AWG	18 /	AWG	16 /	AWG		14 AWG		12 <i>I</i>	WG	10 AWG	8 AWG
		DUCT SIZE	E		DUCT SIZE		0.065	0.113	0.084	0.125	0.096	0.165	0.139	0.105	0.158	0.122	0.153	0.216							
DIMENSION CODE	WIDTH (MM)	HEIGHT (MM)	AREA (MM²)	WIDTH (IN.)	HEIGHT (IN.)	AREA (IN²)	MTW	MTW	THHN	MTW	THHN	MTW	мтw	THHN	MTW	THHN	THHN	THHN							
25X30	25	30	750	0.98	1.18	1.16	78	26	47	21	36	12	17	30	13	22	14	7							
25X40	25	40	1,000	0.98	1.57	1.54	104	34	62	28	48	16	23	40	18	30	19	9							
25X60	25	60	1,500	0.98	2.36	2.31	156	52	94	42	72	24	34	60	26	44	28	14							
25X80	25	80	2,000	0.98	3.15	3.09	209	69	125	57	96	32	46	80	35	59	38	19							
25X100	25	100	2,500	0.98	3.94	3.86	261	86	156	71	120	41	57	100	44	74	47	24							
40X40	40	40	1,600	1.57	1.57	2.46	166	55	100	45	76	26	36	64	28	47	30	15							
40X60	40	60	2,400	1.57	2.36	3.71	251	83	150	68	115	39	55	96	42	71	45	23							
40X80	40	80	3,200	1.57	3.15	4.95	335	111	200	91	153	52	73	128	57	95	60	30							
40X100	40	100	4,000	1.57	3.94	6.19	419	139	251	113	192	65	92	160	71	119	76	38							
60X60	60	60	3,600	2.36	2.36	5.57	377	125	226	102	173	58	82	144	64	107	68	34							
60X80	60	80	4,800	2.36	3.15	7.43	502	166	301	136	230	78	110	193	85	143	91	46							
60X100	60	100	6,000	2.36	3.94	9.30	629	208	377	170	288	98	138	241	106	179	114	57							
80X80	80	80	6,400	3.15	3.15	9.92	671	222	402	181	308	104	147	257	114	190	121	61							

		DATA CABLE 24 AWG							
	1	DUCT SIZE			DUCT SIZE		0.217	0.25	0.422
DIMENSION CODE	WIDTH (MM)	HEIGHT (MM)	AREA (MM²)	WIDTH (IN.)	HEIGHT (IN.)	AREA (IN²)	UPM/CM Cat5e	CAT6	UTP/CM
25X30	25	30	750	0.98	1.18	1.16	7	5	2
25X40	25	40	1,000	0.98	1.57	1.54	9	7	2
25X60	25	60	1,500	0.98	2.36	2.31	14	11	4
25X80	25	80	2,000	0.98	3.15	3.09	19	14	5
25X100	25	100	2,500	0.98	3.94	3.86	23	18	6
40X40	40	40	1,600	1.57	1.57	2.46	15	11	4
40X60	40	60	2,400	1.57	2.36	3.71	23	17	6
40X80	40	80	3,200	1.57	3.15	4.95	30	23	8
40X100	40	100	4,000	1.57	3.94	6.19	38	28	10
60X60	60	60	3,600	2.36	2.36	5.57	34	25	9
60X80	60	80	4,800	2.36	3.15	7.43	45	34	12
60X100	60	100	6,000	2.36	3.94	9.30	56	43	15
80X80	80	80	6,400	3.15	3.15	9.92	60	45	16



EVERYTHING UNDER CONTROL.

THIS IS WHAT YOU EXPECT, AND IT'S WHAT WE DELIVER.

Competitive pricing, superior quality, and immediate availability.

Quality products that perform to the highest standards, supported by an unmatched lifetime warranty.

Direct-from-the-manufacturer pricing, guaranteed same-day shipping, and an unwavering commitment to your satisfaction—it's an unbeatable combination.

www.c3controls.com



